

**REMARKS**

Claims 1-20 are all the claims pending in the application. By this Amendment, Applicant amends claim 1 to include some of the features recited in claim 3. Since claim 3 directly depends on claim 1 and the Examiner already considered the unique features set forth in claim 3, Applicant respectfully submits that claim 1 does not require further search. Claim 3 is amended for conformity with now amended claim 1. By this Amendment, Applicant also rewrites claims 2 and 10 into their independent forms.

I. Summary of the Office Action

Claims 1, 5, 6, 9, 11-14, and 20 presently stand rejected. Claim 8 is allowed and claims 2-4, 7, 10, and 15-19 contain allowable subject matter.

II. Claim Rejections under 35 U.S.C. § 102

Claims 1, 5, 6, 11-14, and 20 are rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,195,480 to Kosaka et al. (hereinafter "Kosaka"). Applicant respectfully traverses this rejection in view of the following comments.

Of these rejected claims, only claim 1 is independent. Independent claim 1, among a number of unique features, recites: "wherein each one of the set of channel regenerators regenerates, by compensating for a distortion of a signal, only a predetermined respective group of channels, each respective group forming a non-overlapping subset of a set of channels to be regenerated, and each channel of the groups is predetermined based on channel wavelength,...wherein the set of channels transmits signals from the transmitter to the receiver."

Kosaka is directed to an optical transmission device which reduces optical noise in an optical transmission system (*see* Abstract). In particular, Kosaka discloses intermediate receivers 6. In Kosaka, each intermediate receiver 6 may includes two amplifying units 31 and 36, and each amplifier 31, 36 includes a dispersion compensator 67 (Fig. 11; col. 13, line 37 to col. 14, line 6 and col. 14, lines 29 to 34). One amplifying unit 31 amplifies channels  $\lambda_1 - \lambda_4$  incoming from the transmitter 2<sub>1</sub> (col. 13, line 53 to col. 14, line 44). The other amplifying unit 36 amplifies reverse channels  $\lambda_5 - \lambda_8$  incoming from another transmitter 2<sub>2</sub> (col. 15, line 26 to col. 16, line 3). In other words, the embodiment of Figs. 11 and 12 of Kosaka (the embodiment relied on by the Examiner, *see* page 2 of the Office Action) discloses a bidirectional system, where different amplifiers (with dispersion compensators 67) are provided for signals coming from different directions. That is, the signals from the channels in the same direction are all amplified together. In short, in Kosaka, there is an amplifier for all channels in a single direction. Kosaka further mentions that similar configuration is assumed for unidirectional system (col. 4, lines 45 to 48). That is, if the Kosaka's system is uni-directional, one amplifier would be provided for all channels. In other words, there is no disclosure or suggestion in Kosaka, that a uni-directional system would have different amplifiers for different wavelengths.

In short, Kosaka fails to disclose or suggest having a set of channels that transmit signals in one direction and having different amplifiers for various subsets of the set of channels that transmit the signals in one direction. In other words, Kosaka fails to disclose or suggest different amplifiers for different wavelengths that transmit the signals in one direction.

Therefore, “wherein each one of the set of channel regenerators regenerates, by compensating for a distortion of a signal, only a predetermined respective group of channels, each respective group forming a non-overlapping subset of a set of channels to be regenerated, and each channel of the groups is predetermined based on channel wavelength,... wherein the set of channels transmits signals from the transmitter to the receiver,” as set forth in claim 1 is not disclosed by Kosaka, which lacks having different amplifiers for different channels that transmit signals within the same direction. For at least this exemplary reason, claim 1 is patentably distinguishable (and is patentable over) Kosaka. Therefore, Applicant respectfully requests the Examiner to withdraw this rejection of claim 1 and its dependent claims 5, 6, 11-14, and 20.

III. Claim Rejection under 35 U.S.C. § 103

Claim 9 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Kosaka in view of U.S. Patent No. 6,480,312 to Okuno et al. (hereinafter “Okuno”). Applicant respectfully traverses this rejection in view of the following comments.

Claim 9 depends on claim 1. Applicant has already demonstrated that Kosaka fails to disclose or suggest the unique features of claim 1. Okuno fails to cure the deficient disclosure of Kosaka (*see* page 13 of the Amendment under 37 C.F.R. § 1.111 filed on February 2, 2006). Therefore, claim 1 is patentable over the combined disclosure of Kosaka and Okuno. Together, the combined disclosure of Kosaka and Okuno would not have and could not have led an artisan of ordinary skill in the art to achieve the unique features of claim 1. Claim 9 is patentable at least by virtue of its dependency on claim 1.

AMENDMENT UNDER 37 C.F.R. § 1.116  
U.S. Appln. No. 09/493,091  
Attorney Docket No.: Q57709

IV. Allowable Subject Matter

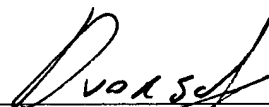
Applicant thanks the Examiner for allowing claim 8 and for indicating that claims 2-4, 7, 10, and 15-19 contain allowable subject matter. Applicant rewrites claims 2 and 10 into their independent form. With respect to the remaining allowed claims, Applicant respectfully holds the rewriting of these claims in abeyance until arguments presented with respect to these claims have been reconsidered.

V. Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly invited to contact the undersigned attorney at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

  
\_\_\_\_\_  
Nataliya Dvorson  
Registration No. 56,616

SUGHRUE MION, PLLC  
Telephone: (202) 293-7060  
Facsimile: (202) 293-7860

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**23373**

CUSTOMER NUMBER

Date: June 27, 2006

Attorney Docket No.: Q57709